

FIG. 1

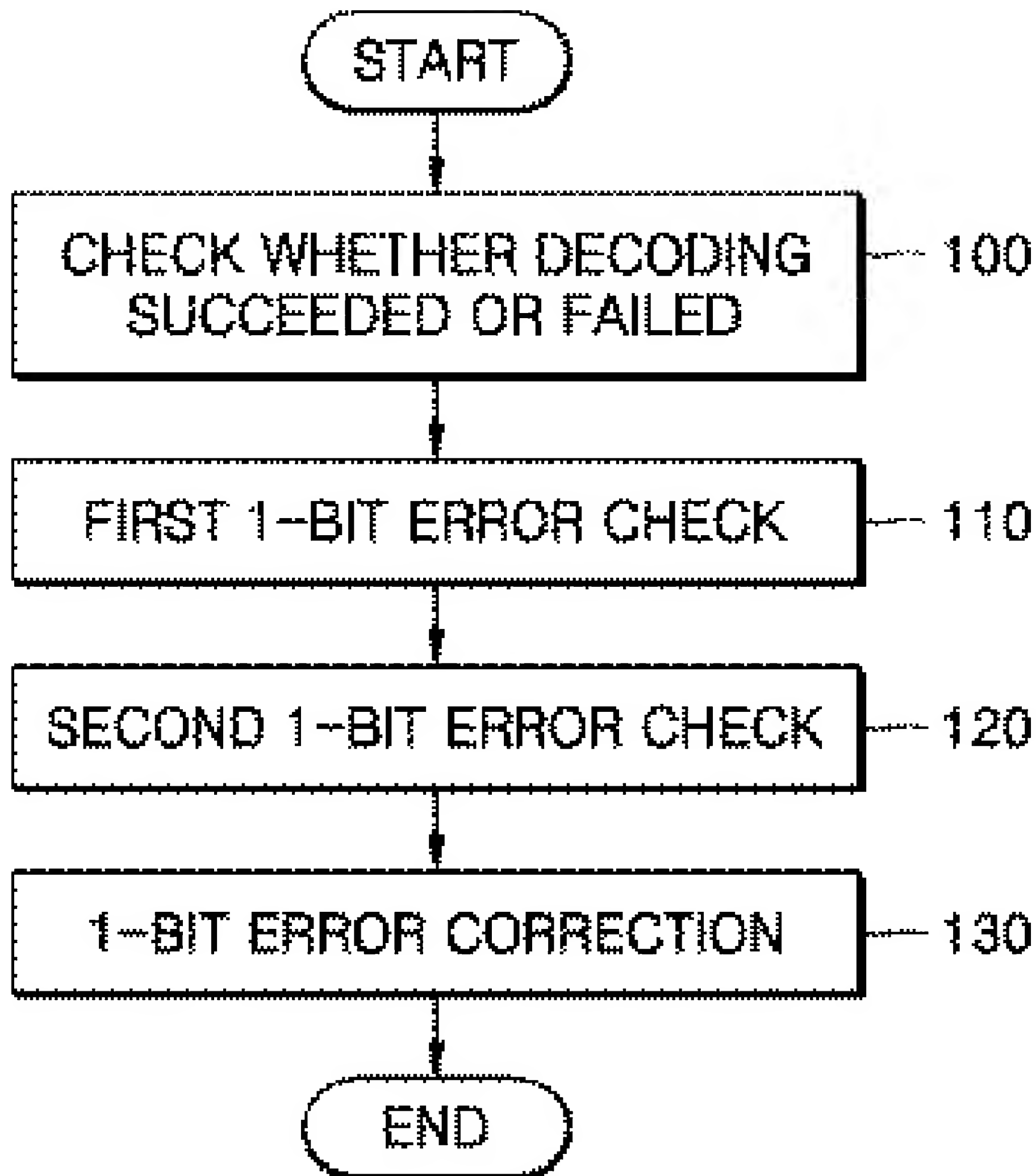


FIG. 2

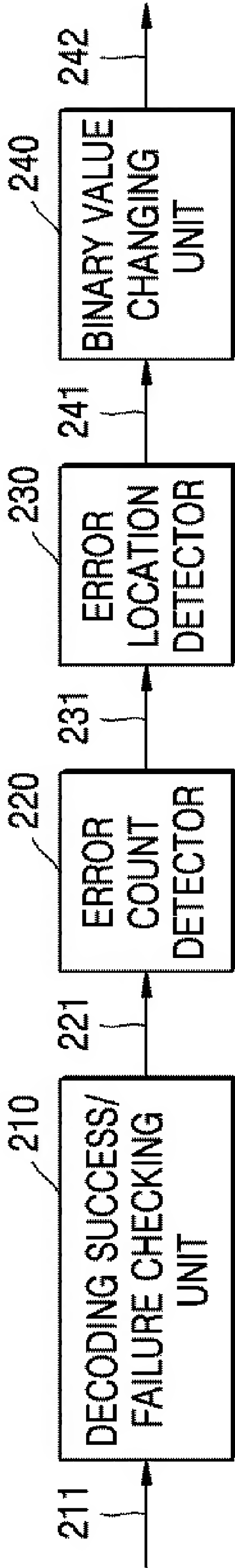


FIG. 3

$$\begin{array}{c}
 R_1 \\
 R_2 \\
 \vdots \\
 R_j \\
 \vdots \\
 R_m
 \end{array}
 \begin{array}{c}
 C_1 \quad C_2 \quad \dots \quad C_k \quad \dots \quad C_n \\
 \left[\begin{array}{cccccc}
 h_{11} & h_{12} & \dots & h_{1k} & \dots & h_{1n} \\
 h_{21} & h_{22} & \dots & h_{2k} & \dots & h_{2n} \\
 \vdots & \vdots & & \vdots & & \vdots \\
 h_{j1} & & \dots & h_{jk} & \dots & h_{jn} \\
 \vdots & \vdots & & \vdots & & \vdots \\
 h_{m1} & & \dots & h_{mk} & \dots & h_{mn}
 \end{array} \right]
 \end{array}
 \underbrace{\quad}_H
 \begin{array}{c}
 \left[\begin{array}{c}
 x_1 \\
 x_2 \\
 x_3 \\
 \vdots \\
 x_n
 \end{array} \right] \\
 \underbrace{\quad}_C
 \end{array}
 =
 \begin{array}{c}
 \left[\begin{array}{c}
 z_1 \\
 z_2 \\
 z_3 \\
 \vdots \\
 z_m
 \end{array} \right] \\
 \underbrace{\quad}_Z
 \end{array}$$

FIG. 4

$$\begin{array}{c}
 R_1 \\
 R_2 \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 R_{10}
 \end{array}
 \begin{array}{c}
 C_1 \quad C_2 \quad \dots \quad C_{10} \quad \dots \quad C_{20} \\
 \left[\begin{array}{cccccc}
 1 & 0 & & 0 & & 0 \\
 0 & 1 & & 0 & & 0 \\
 1 & 0 & & 1 & & 0 \\
 0 & 1 & & 0 & & 0 \\
 1 & 0 & & 0 & & 0 \\
 0 & 1 & & 0 & & 1 \\
 0 & 0 & & 1 & & 1 \\
 0 & 0 & & 0 & & 1 \\
 0 & 0 & & 0 & & 0 \\
 0 & 0 & & 1 & & 0
 \end{array} \right]
 \end{array}
 \begin{array}{c}
 \left[\begin{array}{c}
 x_1 \\
 x_2 \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 x_{10} \\
 \vdots \\
 \vdots \\
 \vdots \\
 \vdots \\
 x_{20}
 \end{array} \right]
 \end{array}
 =
 \begin{array}{c}
 \left[\begin{array}{c}
 0 \\
 0 \\
 1 \\
 0 \\
 0 \\
 0 \\
 1 \\
 0 \\
 0 \\
 1
 \end{array} \right]
 \end{array}$$

Shaded regions in the matrix indicate specific rows: R_3 (row 3), R_6 (row 6), and R_{10} (row 10). The elements 1 in these rows are labeled 401, 402, and 403 respectively. The corresponding elements in the output vector Z are labeled 411, 412, and 413 respectively.

FIG. 5

